Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

### *Report from Calcutta—Transactions of Service—Cholera, plague, and smallpox—Health conditions in Bengal in 1905—Rat extermination—Vaccination—Sanitary measures.*

Acting Assistant Surgeon Eakins reports, July 19, as follows:

Week ended July 14, 1906, bill of health issued to the steamship *Manica*, bound for Philadelphia and New York, with a total crew of 65. The usual precautions were taken, holds fumigated, rat guards placed on wharf lines, and lascars' effects disinfected.

Week ended July 7, 1906, 18 deaths from cholera, 9 from plague, and 11 from smallpox in Calcutta.

In Bengal, week ended July 7, 1906, 25 cases and 21 deaths from plague.

In India, week ended July 7, 1906, 630 cases and 536 deaths from plague.

The very low temperature and excessive rainfall during the premonsoon period, the abnormal heat in June, and the early cessation of the monsoon were conditions very favorable for the development of plague and malaria during the earlier months of the year 1905 and rendered the last quarter most unhealthy.

A considerable rise in the general mortality is reported, the number of deaths registered being 1,922,369, or 38.53 per mille, which was the highest rate recorded during the last twenty years. This increase is ascribed by the sanitary commissioner and the reporting officers to the greater unhealthiness of the year. The districts of Gya, Patna, Shahabad, and Saran suffered most, having death rates of over 50 per mille. The healthiest districts were Singhbhum (22.05), Ranchi (25.50), and Manbhum (26.23). Chota Nagpur was as usual the healthiest division, with a death rate of only 27.72, while the highest mortality occurred in the Patna division, where a death rate of 45.86 per mille was recorded.

The mortality from cholera was the highest recorded since 1901. The deaths from this disease numbered 146,339, giving a ratio of 2.93 per mille, against 1.63 in 1904, and 2.77, the quinquennial average. With the exception of Chota Nagpur division, which recorded a death rate from this cause of only 0.35 per mille, the whole province suffered severely, the ravages of the disease being worst in the districts of Gya (6.63 per mille), Punea (5.17), Patna (5.00), Shahabad (4.94), Howrah (4.78), and Bhagalpur (4.74). In Puri the cholera mortality rose from 0.99 in 1904 to 3.97 in 1905.

The mortality from plague was the highest on record since the outbreak in 1898, the total number of deaths being 126,084, against 75,433 in the previous year, and 58,255, the average of the last quinquennium. The period of greatest prevalence was, as usual, from January to April, but the climax was reached in the month of March, in which month alone 40,090 deaths from plague were returned. Twenty-seven districts were more or less affected by the disease, the districts which suffered most being Saran, Patna, Gya, Shahabad, Monghyr, and Calcutta. During the year rat extermination was carried on in many parts of the province, but notably in the Giridih coal fields and in Bihar. As an example of the efficacy of rat extermination the sanitary commissioner cites the instance of Jagadispur in the Shahabad district. The operations were carried on there very thoroughly, and though there was a good deal of the disease in Shahabad, Jadispur itself enjoyed complete immunity despite the fact that a very large number of the people from other badly infected localities came to reside there. The arrangements to keep up the campaign for at least another twelve months are complete.

During the year 1,544 plague inoculations were performed.

A total of 1,214,487 deaths was reported from "fever," the death rate from this cause representing a ratio of 24.34 against 20.49 per mille in the preceding year, and accounting for 63.17 per cent of the total deaths registered from different causes during 1905. Antimalarial measures directed to the destruction of mosquitoes were tried at Berhampore and Balasore, and though it can not be claimed that they have as yet yielded great results, they caused a considerable reduction in the number of mosquitoes and paved the way for more complete operations, which will now be carried out at Berhampore, Ranaghat (in Nadia), Jagadispur (in Shahabad), and Mohespur (in Jessore).

Considerable activity was displayed by many municipalities in the administration of the various branches of sanitation. Inquiries were made during the year to ascertain whether filtration through sand and application of sulphate of copper rendered the effluent from septic tank installations bacteriologically pure. The net result of the experiments was to show that these methods, either separately or in combination, were capable of purifying the effluent, but that in practice they were likely to prove difficult in proportion to the amount of impurity in the material to be treated; and it was considered doubtful whether they would be practicable in the case of effluents of a high degree of impurity except as adjuncts to other methods of treatment. Sterilization of the effluent was then attempted by means of chlorinated lime. The experiment proved successful, and it was found that an addition of this material equivalent to 5 grains for each gallon of effluent rendered the fluid virtually sterile.

The sanitary commissioner reports that septic-tank latrines are an entire success when used for communities such as mills, large schools, railway workshops, and the like, and he is now considering whether they can be adapted to municipal towns. He will be asked to submit a report embodying the results of his experiments. The sanitary commissioner has also made a number of suggestions for the adoption in municipalities of the septic-tank method as a substitute for trenches.

The vaccination returns for the year are confined to the districts now within the reconstituted province of Bengal. The death rate from smallpox for the whole province in 1905–6 (0.22 per mille) was slightly higher than that for the previous year (0.17 per mille), but compares favorably with the average death rate for the ten years, which was 0.37. Perhaps the most noticeable feature of the returns is the large increase in the death rate in Calcutta from 0.14 per mille in 1904–5 to 2.34 in 1905–6 as a result of a severe outbreak of smallpox during the cold weather. The death rate in Puri was also high, that being the only district in the province where the protection afforded to infants is below 200 per mille. In Cuttack there has been a steady decrease in the annual death rate from 3.65 in 1900–1901 to 0.04 in the year 1905, the number of successful vaccinations having increased nearly 100 per cent during these years.